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## SEQUENCE LISTING

&lt;110&gt; Department of plant biochemistry

&lt;120&gt; Fatty acid desaturase gene from plants

&lt;130&gt; Sequence\_desaturase

&lt;140&gt; 50669

&lt;141&gt; 1999-08-31

&lt;160&gt; 2

&lt;170&gt; PatentIn Vers. 2.0

&lt;210&gt; 1

&lt;211&gt; 1285

&lt;212&gt; DNA

&lt;213&gt; Calendula officinalis

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (42)..(1175)

&lt;400&gt; 1

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Arg Met Ser Asp Pro Ser Glu Gly Lys Asn Ile Leu Glu Arg Val Pro
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gtc gat cca ccg ttc acg tta agc gat ctg aag aaa gcg att cct acc 152
Val Asp Pro Pro Phe Thr Leu Ser Asp Leu Lys Lys Ala Ile Pro Thr
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cat tgc ttt gag cga tct gtc atc cgg tca tca tac tat gtt gtt cat 200
His Cys Phe Glu Arg Ser Val Ile Arg Ser Ser Tyr Tyr Val Val His
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Asp Leu Ile Val Ala Tyr Val Phe Tyr Tyr Leu Ala Asn Thr Tyr Ile
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Pro Leu Ile Pro Thr Pro Leu Ala Tyr Leu Ala Trp Pro Val Tyr Trp
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Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp Val Ile Gly His Glu

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27

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## 28

Arg Asp Phe Gly Phe Leu Asn Arg Val Phe His Asp Val Thr His Thr  
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cac gtc ttg cat cat ttg atc tca tac att cca cat tat cat gca aag 1016  
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 Glu Ala Arg Asp Ala Ile Lys Pro Val Leu Gly Glu Tyr Tyr Lys Ile  
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<210> 2

<211> 377

<212> PRT

<213> Calendula officinalis

<400> 2

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 35 40 45

Tyr Tyr Val Val His Asp Leu Ile Val Ala Tyr Val Phe Tyr Tyr Leu  
 50 55 60

Ala Asn Thr Tyr Ile Pro Leu Ile Pro Thr Pro Leu Ala Tyr Leu Ala  
 65 70 75 80

Trp Pro Val Tyr Trp Phe Cys Gln Ala Ser Ile Leu Thr Gly Leu Trp  
 85 90 95

Val	Ile	Gly	His	Glu	Cys	Gly	His	His	Ala	Phe	Ser	Asp	Tyr	Gln	Leu		
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Ile	Asp	Asp	Ile	Val	Gly	Phe	Val	Leu	His	Ser	Ala	Leu	Leu	Thr	Pro		
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Tyr	Phe	Ser	Trp	Lys	Tyr	Ser	His	Arg	Asn	His	His	Ala	Asn	Thr	Asn		
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Ser	Leu	Asp	Asn	Asp	Glu	Val	Tyr	Ile	Pro	Lys	Arg	Lys	Ser	Lys	Val		
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Lys	Ile	Tyr	Ser	Lys	Leu	Leu	Asn	Asn	Pro	Pro	Gly	Arg	Val	Phe	Thr		
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Ile	Ser	Gly	Lys	Lys	Tyr	Gly	Arg	Phe	Ala	Asn	His	Phe	Asp	Pro	Met		
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Ser	Pro	Ile	Phe	Asn	Asp	Arg	Glu	Arg	Val	Gln	Val	Leu	Leu	Ser	Asp		
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Phe	Gly	Leu	Leu	Ala	Val	Phe	Tyr	Ala	Ile	Lys	Leu	Leu	Val	Ala	Ala		
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Val	Ser	Val	Phe	Phe	Val	Leu	Ile	Thr	Tyr	Leu	His	His	Thr	His	Leu		
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Ser	Leu	Pro	His	Tyr	Asp	Ser	Thr	Glu	Trp	Asn	Trp	Ile	Lys	Gly	Ala		
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			355				360					365					

30

Lys Gly Val Phe Trp Tyr His Lys Met  
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